

What is claimed is:

1. A window construction comprising
an exterior frame including at least four formed frame corners and at least
four extruded rails joined between said frame corners to define the exterior shape
5 of the frame outer edges and the shape of the edges of an interior opening
surrounded by the frame, the rails providing the header, sill, and jambs of the
frame;
the joints of said formed corners and rails having joint sections which
present a smooth exterior at least on the exteriorly visible parts of the joints,
10 said corners and rails also having integral exterior frame flanges extending
outward therefrom for attachment of the assembled window into a window aperture,
said corners and rails having at least one channel extending about the
interior opening to receive and support a window pane, and
said rails and corners being formed from essentially the same material.
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2. A window as defined in claim 1, wherein said joint sections have closely
interfitting spline sections which form the joint.
3. A window as defined in claims 1 or 2, wherein a sealant is added to the
20 joints as they are assembled to form a weather-tight joint.
4. A window as defined in claims 2 or 3, wherein said joint sections comprise
male spline fittings of predetermined irregular cross-section on said corners and
said lineal extrusion pieces having essentially matching internal cross-section to
25 receive said male splines of said formed corners.
5. A window as defined in claim 1, wherein said joint sections have compatible
mating profiles that are joined by welding to form a water-tight joint.
- 30 6. A window as defined in claim 1, 2, 3, 4 or 5, wherein there are at least one
channel which receives the edges of a sash construction,
said sash construction including at least one set of four sash extrusion
pieces and at least four formed sash corners which are joined to define at least one
sash frame dimensioned to fit within said channel,

said sash extrusion pieces and formed sash corners defining the exterior shape of the sash frame outer edges to conform to the channels, and also defining the shape of the edges of an interior opening surrounded by the frame, the lineal extrusion pieces providing the header, sill, and jambs of the sash frame;

5 said sash extrusion pieces and corners forming a sash channel to receive a window pane,

at least one of said sash frames being movable along its channel such that the jambs of the two sashes overlap and close the interior opening of the exterior frame, and to positions along its channel wherein the window is partially opened.

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7. The window defined in claim 6, wherein both sashes are movable.

8. A window as defined in claim 6, wherein said sash lineal extrusion pieces and formed corners are produced from compatible materials as the exterior window frame.

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9. A window as defined in claims 6 and 7, wherein the sashes include sash joint sections having closely interfitting spline sections which form the joint.

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10. A window as defined in claim 9, wherein said sash joint sections comprise male spline fittings of predetermined irregular cross-section on said formed sash corners and said sash rails having essentially matching internal cross-section to receive said male splines of said formed sash corners.

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11. A window as defined in any one of claims 1-10, wherein the lineal pieces are extruded of a synthetic material and the formed corners are molded of compatible synthetic materials.

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12. A window as defined in any one of claims 1-11, wherein there are multiple separate channels in the exterior window frame, and one of said channels being adapted to receive a frame carrying a screen and/or an insulating pane.

13. A window as defined in any one of claims 1-10, wherein at least the sill has

an outwardly and downwardly sloped surface to drain moisture to the exterior of the window frame.

14. The method of constructing a window comprising the steps of,

5 a) building an exterior frame from at least four formed frame corners and at least four extruded rails joined between the frame corners to define the exterior shape of the exterior frame outer edges and the shape of the edges of an interior opening surrounded by the frame, whereby the rails provide the header, sill, and jambs of the window frame;

10 b) forming the corners and the lineal extrusion pieces from synthetic material and having integral main frame flanges extending outward thereof for attachment of the assembled window into a window aperture, and

c) forming on the corners and the lineal extrusion pieces at least one channel extending about the interior opening to receive and support a window pane.

15. The method of claim 14, comprising the additional steps of,

d) forming joint sections comprising male spline fittings of predetermined irregular cross-section on the corners, and

20 e) forming the lineal pieces by extrusion so as to have essentially matching internal cross-section to receive the male splines of said formed corners.

16. The method of claim 14, comprising the additional steps of,

25 e) in step (c) forming at least one channel which receives the edges of a sash construction,

f) forming a sash construction including at least one set of four sash extrusions and at least four formed sash corners,

30 g) joining the sash lineal extrusions and sash corners to define at least one sash frame dimensioned to fit within the channel, whereby the lineal sash extrusion pieces and formed sash corners define the exterior shape of the sash frame outer edges to conform to the channel, and also define the shape of the edges of an interior opening surrounded by the frame,

h) mounting a sash in the respective channel.

17. The method defined in any of claims 14-16, wherein the formed corners and the lineal extrusions are formed of a vinyl material.
18. The method defined in any of claims 14-16, welding compatible mating 5 profiles of joint sections to form water-tight joints.
19. A formed corner section for a window framework, comprising a central body having diverging end sections arranged at a predetermined angle to each other,
10 said end sections have protruding spline fittings aligned at a predetermined angle to each other and having a predetermined irregular cross-section which will fit closely within the ends of lineal rail parts of the framework to establish rigid finished corners of the framework.
- 15 20. A formed window corner section as defined in claim 17, wherein said spline fittings are male splines of predetermined irregular cross-section which match openings at the ends of lineal rail parts having essentially complementary internal cross-section to receive said male splines of said formed corners.